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Attorney Docket No.: N1085-00168  
TSMC2003-0219

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**JUL 31 2006**

## FACSIMILE TRANSMITTAL SHEET

In re application of: **Shui-Ming Cheng**

Examiner: **Laura M. Schillinger**

Serial No.: **10/743,985**

Group Art Unit: **2813**

Filed: **12/22/2003**

Confirmation No.: **9060**

For: **BODY CONTRACT FORMATION IN PARTIALLY DEPLETED SILICON ON INSULATOR DEVICE**

To: Examiner Laura M. Schillinger  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

FACSIMILE NUMBER: 571-273-8300

**CONFIRMATION**

**TELEPHONE:**

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DATE: July 31, 2006

TOTAL # OF PAGES:  
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4

MESSAGE: **Attached is a Response to Office Action.**

NOTE: Original will not follow

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JUL 31 2006

Appl. No. 10/743,985  
Amdt. dated 07/31/2006  
Response to Office Action of 07/03/2006

Attorney Docket No.: N1085-00168  
[TMSC2003-0219]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **Shui-Ming Cheng**

Examiner: **Laura M. Schillinger**

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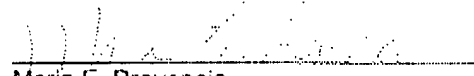
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I hereby certify that this correspondence (and anything referred to as being transmitted herewith) is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. 571-273-8300) on the date shown below.

Date: July 31, 2006

  
Maria E. Provencio

Examiner Laura M. Schillinger  
Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
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**RESPONSE TO OFFICE ACTION - RESTRICTION REQUIREMENT,  
DATED JULY 3, 2006**

Commissioner:

Responsive to the Restriction Requirement in the Office Action dated July 3,  
10 2006, Applicants respond as follows.

Claims 11-35 are pending in this application with claims 20-34 having been previously withdrawn from consideration. The Office Action now subjects claims 11-19 and 35 to Restriction.

Applicants are directed to elect between:

15 Species 1, claims 11-19, pertaining to a device including O ions; and

Species 2, claim 35, pertaining to a device including F ions.

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The subject Office Action indicates that the species are independent or distinct because of the above mutually exclusive characteristics. Applicants disagree and respectfully traverse the Restriction Requirement on the following grounds.

The claims in the subject application were originally restricted, via the Restriction Requirement mailed April 28, 2005, into Group I, method claims and Group II, device claims. Group II was further restricted into species 1-3. In the April 28, 2005 Office Action, the top 2 lines of page 3 recite: "Species 1, claims 11-19, pertaining an SOI device having a gate with oxygen or halogen ions and one or more additional gate regions covering all implants." The Office Action thereby concedes that an SOI device having a gate with oxygen or halogen ions and one or more additional gate regions covering all implants, as recited in originally-filed claim 11, comprises one species. restriction under 37 C.F.R. 1.142 is therefore improper.

Originally filed claim 11 which included the limitation "oxygen or halogen ions providing implants and a substrate of an SOI device" does not cover two or more independent and distinct inventions, rather, this limitation covers a single species as conceded in the Office action. The features that originally appeared in claim 11 have been bifurcated into amended claim 11 which recites oxygen ions and newly added claim 35 which recites fluorine atoms. The features that now appear in amended claim 11 and previously added claim 35 are therefore also directed to a single species and not subject to restriction under 37 C.F.R. 1.142.

Moreover, the continued prosecution of both claims 1-19 and claim 35 would not present an undue burden on the Examiner because the Examiner has already conducted a search for the features of both claims 11-19, and 35 in preparation for writing the Office Action mailed on November 1, 2005 which covered the substantive merits of then-pending claims 11-19, prior to the addition of claim 35. Since this search has already been conducted and an undue burden upon the Examiner would not be presented, the restriction is again improper.

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Applicants further submit that claims 11 and 35 are not drawn to independent and distinct inventions because each of these claims is directed to the inclusion of an ion dopant that prevents gate leakage and parasitic capacitance or additional gate loading capacitance as in the originally-filed specification. The presence of the introduced ions forms a thicker gate oxide: "with the gate oxide being thicker by having the oxygen or halogen ions providing gate regions in the substrate," originally-filed specification, ¶ [0044]. The fluorine ions of claim 35 and the oxygen ions of claim 11 are merely different exemplary embodiments of one invention. While they are two different elements, they do not rise to the level of independent and distinct inventions as required in 37 C.F.R. § 1.142 for restriction.

Applicants therefore respectfully request examination of each of claims 11-19 and 35, on the merits.

The previous comments notwithstanding, Applicants provisionally elect Species 1, claims 11-19 pertaining to a device including O ions, for further prosecution.

The Application, including claims 11-19 and 35 is now in condition for allowance based on the comments provided in Applicant's previous response dated February 1, 2006 and for reasons set forth above. Applicants respectfully request early notification of same.

The Assistant Commissioner for Patents is hereby authorized to charge any fees or credit any excess payment that may be associated with this communication to Deposit Account 04-1679.

Dated: 31 July, 2006

Respectfully submitted,



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